FIRST AID
IN
OUTLINE

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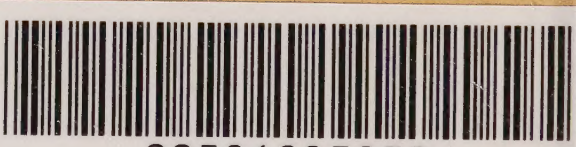


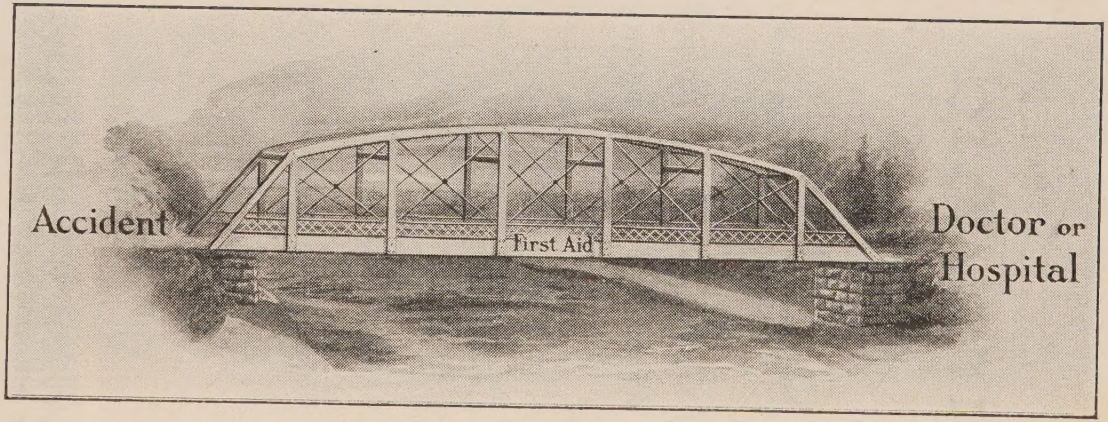
First Aid in Outline

A Brief Guide for the Application of First Aid in Emergency

Published by

Johnson & Johnson
NEW BRUNSWICK, N. J., U.S.A.

[ca-1920?]



First aid is a bridge between the accident and medical or surgical assistance. Once this bridge is crossed, and the injured person placed in the hands of the medical attendant or hospital, first aid is at an end.

INTRODUCTORY

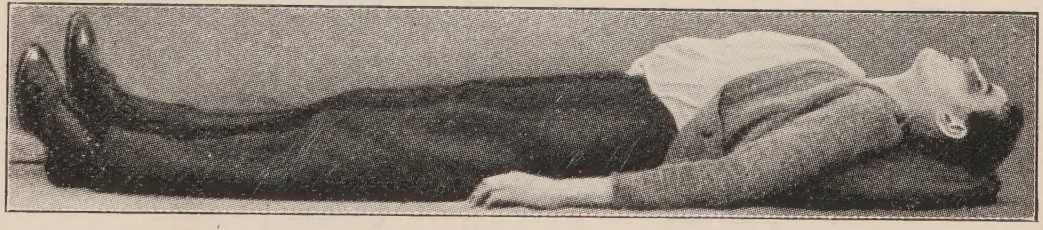
This is a first aid book for every-day use in the camp, shop, factory and household.

All persons who are likely at any time to be called upon to take charge of an injured person shall first read this book through carefully, and then take up the study of the various subjects in detail, to impress the most important points upon the memory.

It is further suggested that the reader should not wait for an accident to occur before testing his ability to handle it. He can practice upon himself or invoke the friendly aid of others, allowing one to act as the injured person and the others to carry out the instructions given in this Handbook.

Of all the directions in the pages which follow, the one most emphasized is—"Send for a doctor at once!"

The aim is not only to teach first aid, but also to teach the art of knowing when to stop and place the sufferer in thoroughly competent hands.



Injured person with head slightly lower than body.

First Aid in Outline

The First Things To Do in Accidents

Keep cool. Send for a doctor at once.

Move the patient to a quiet, airy place.

Keep bystanders at a distance.

Handle the patient gently and quietly.

Place him in a comfortable position.

Unless the head is injured, place it on the same level as the body.

Loosen the collar, waist-band and belt.

If the patient vomits, turn him on one side with the head low.

If bleeding, stop at once.

Cover and dress all wounds immediately.

Shock

Shock is shown by coldness of the body, pale face, feeble pulse, half closed eyelids, irregular breathing, sometimes insensibility.

Send for a doctor at once.

Lay patient at full length on back, with head low. Loosen tight clothing.

Keep patient warm with blankets or coats, whether in winter or summer. Apply hot bricks, stones, plates, or water bottles. Apply mustard plasters to the soles of the feet and to the wrists. Rub the arms and legs.

If conscious give hot drinks of tea, coffee or milk. Do not give alcoholic stimulants except by order of a physician.

Bleeding

In stopping bleeding by pressure, remember the flow of blood in veins is TOWARD the heart; in arteries FROM the heart.

BLEEDING FROM SLIGHT WOUNDS.—Cover with surgically clean gauze. Bandage firmly.

BLEEDING FROM VEINS.—Blood is dark read, flows freely from the wound but does not spurt.

Lay patient down. Loosen tight clothing, garters or straps. Elevate wounded part. If severe, press on wound with hard pad of clean gauze. Apply cold by means of ice. If this does not stop bleeding, apply tight bandage near wound, on side farthest from heart.

BLEEDING FROM ARTERIES.—Blood bright red color, comes in spurts.

Act quickly. Send for doctor.

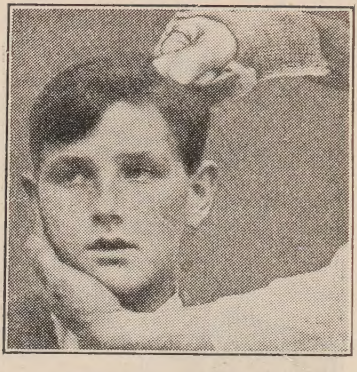
Lay patient down, cut away clothing and expose wounds.

Elevate wounded part. Press with thumb or finger covered with surgical gauze or clean towel on or into the wound and bind with tight bandage.

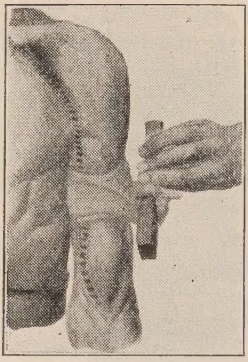
If artery passes over bone, press there with fingers.

To arrest bleeding from arteries of the cheek.

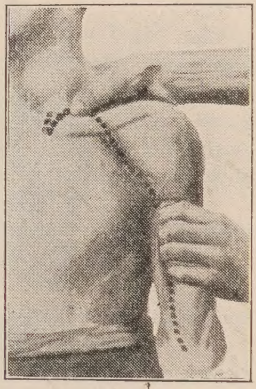
To arrest bleeding of the temple.



To arrest bleeding of scalp. Pressure applied to bleeding point with thumb, the thumb covered with clean cloth or gauze.



Spanish windlass applied to arm.



To arrest bleeding of upper arm.

To arrest bleeding of the neck.

To arrest bleeding of cheek. Pressure applied to artery by placing thumb inside the mouth and finger outside.

If bleeding does not stop, compress arteries with tight bandage near wound, between heart and wound.

The illustrations show the points to which pressure should be applied to stop bleeding in the various parts of the body.

The beginner in first aid should practice locating the points, and thus be ready to apply pressure quickly and effectually.

After bleeding has been stopped, cover the wound with surgically clean gauze, and bandage. A soiled covering is worse than none at all, and may cause blood poisoning. Keep patient absolutely quiet.

If tight bandage constricting the part has been applied, release it slightly from time to time, so as to restore the circulation of blood.

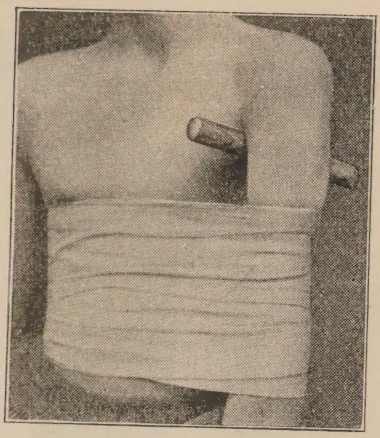
FAINTING FROM BLEEDING.—Lay patient down with head lower than body; see that he has plenty of fresh air; loosen all tight clothing from waist up. Keep limbs elevated; apply warmth. When again conscious, attend to any bleeding that occurs. Give hot drinks.

BLEEDING FROM TOOTH SOCKET.—Put ice in the cavity, or a plug of cotton held tightly by closing jaws. If not successful, saturate cotton in strong solution of alum or salt.

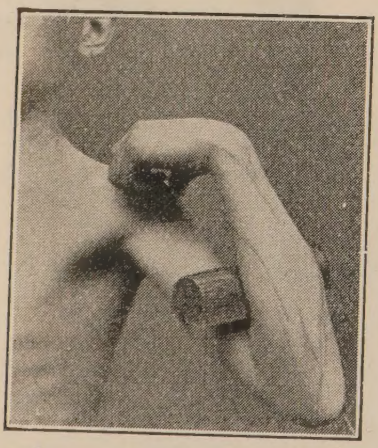
NOSE BLEED.—Lay patient on back; raise arms above head.

Apply ice or cold water to forehead, nose and back of neck.

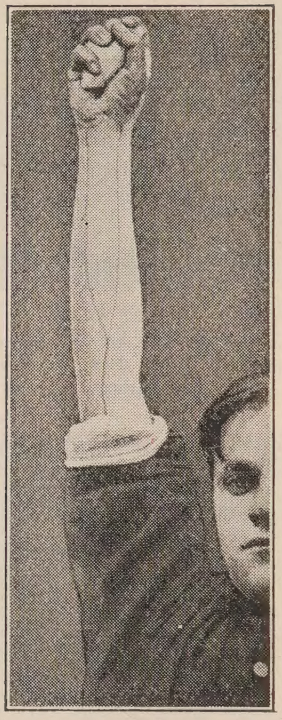
Let patient snuff solution containing a tablespoonful of salt or alum in a pint of water. If these fail, stuff strips of surgical gauze or cotton into nostril tightly, pushing it well back.



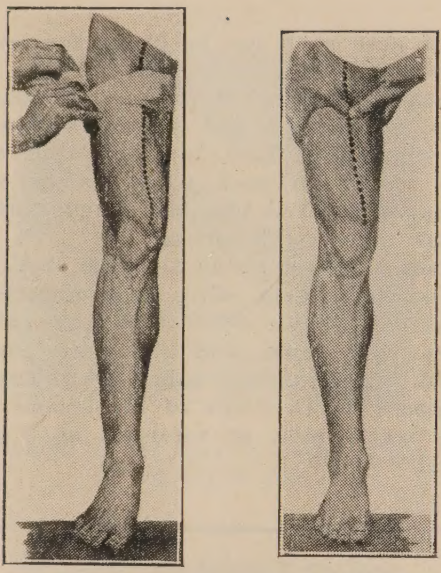
Compression to arrest bleeding of axillary artery. A piece of wood or book thrust into the space, and arm bandaged to the side.



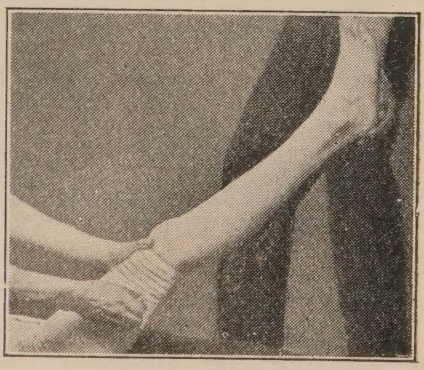
Flexion of arm at elbow to arrest bleeding. A piece of wood or hard substance thrust in the space of the elbow. Arm may be fastened in this position.



Elevation of the arm, with the hand grasping a stick or other substance, to arrest bleeding



Spanish windlass and hand pressure to arrest bleeding in leg or thigh.



To arrest bleeding of leg or foot. Limb elevated and pressure applied.

The nose must not be blown for several hours.

BLEEDING FROM LUNGS.—Lay patient down with head and shoulders elevated and supported. Keep him absolutely quiet in a cool, darkened room. Give small pieces of cracked ice, also small portions of salt mixed with vinegar.

Place cold wet cloths on chest, but keep rest of body warm. Give no stimulants.

BLEEDING FROM STOMACH.—Lay patient down with head and shoulders slightly raised. Keep patient quiet. Feed cracked ice and give 15 drops of turpentine in a little warm milk at intervals of 2 or 3 hours.

Bleeding Don'ts

Don't use lukewarm water to stop bleeding. Use either ice, ice-cold water or water as hot as can be borne.

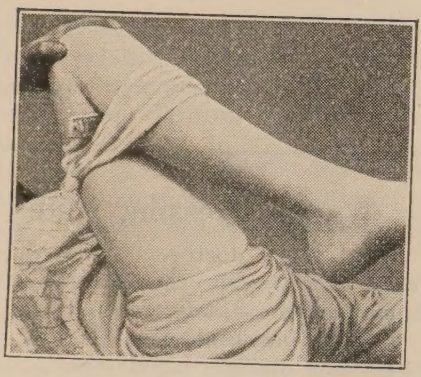
Don't apply cobwebs, tobacco, mud or other styptics to stop bleeding.

Don't give stimulants to bleeding patients.

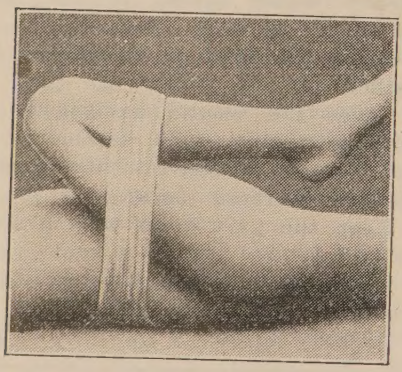
Don't put bare fingers into a bleeding wound.

Don't keep tight bandages applied longer than necessary.

Don't apply any dirty dressing or bandage; use the surgically clean dressings described in these pages.



Flexion of the knee to arrest bleeding in leg or foot.



Flexion of leg to arrest bleeding in thigh. A stick or knotted cloth placed in the groin and the leg bent double back upon the abdomen, and fastened with bandage.

Wound Dressing Hints

Send for a doctor.

Do not touch the wound with bare unclean hands.

Arrest bleeding.

Do not disturb blood clots.

Remove foreign substances, when it can be easily done.

Never probe for a bullet.

Do not wash wounds with ordinary water unless it has been boiled.

Bring the edges of the wound together.

Cover the wound as quickly as possible, using such materials as are found in the outfits recommended in these pages.

Keep the part quiet with a sling or splint.

Rest is essential to the healing of wounds.

A vital point is to cover the wound as quickly as possible. This will prevent the entrance of contamination through contact with the clothing and other substances.

FIRST AID TO THE WOUNDED.—Lay the patient in a comfortable position. Stop bleeding. Combat shock if present. Get a doctor at once.

The chief point is that materials used to cover the wound must be absolutely clean —that is, surgically clean. Such is the case with all the dressings recommended in this book.

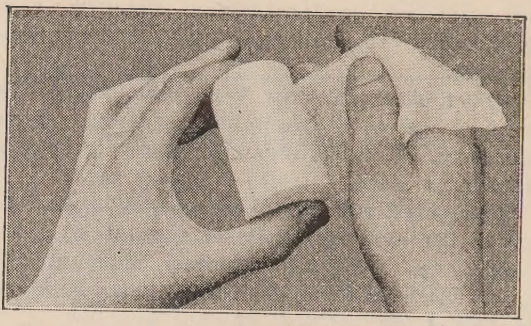
As a rule it is safer to bind up the wound temporarily, dirt and all, than to touch it with unclean hands.

Dirt, bits of glass or clothing, splinters of wood, fish-hooks, pins or thorns should be picked out with tweezers or pincers, made clean by boiling the instrument in soap suds made of antiseptic soap. If not possible to make hands surgically clean by scrubbing with antiseptic soap, cover the fingers with surgical gauze before touching the wound.

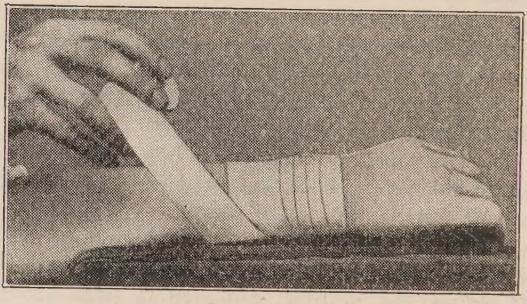
Do not mop a wound except with water made sterile by boiling and then cooled and mixed with an antiseptic. Wash the wound by dipping a wad of absorbent cotton or gauze into the water and, holding it above the wound, squeeze it and direct the trickling stream gently upon wound.

Never attempt to stitch a wound—leave that for the surgeon.

Do not apply adhesive plaster except over small wounds.



Method of handling roller bandage.



Applying roller bandage spirally, beginning with slow spiral turns.

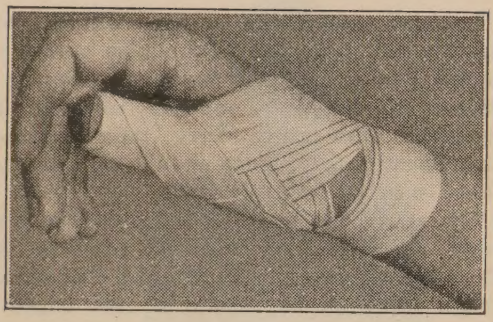
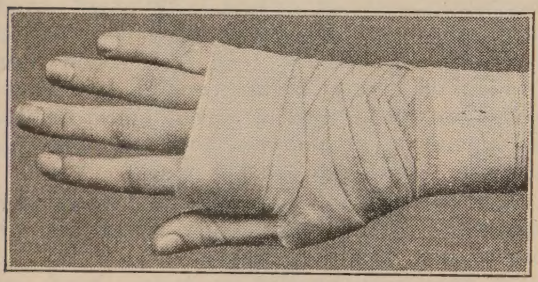
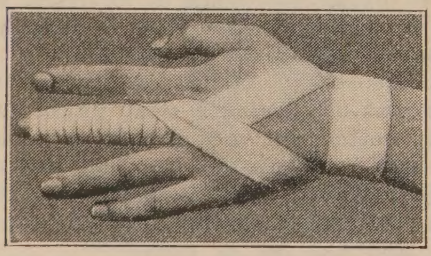


Figure-of-eight roller bandage for thumb; begin at wrist.



Roller bandage for back of hand and wrist; begin at wrist.



Roller bandage for the finger; begin at wrist.

Do not cover the entire wound with plaster, but apply narrow strips across the wound, leaving spaces between. Strips of plaster should not entirely encircle the wounded limb since they may interfere with circulation. Hair should be cut away where plaster is applied.

Where plaster is not employed, draw the parts together as closely as possible, apply a compress, and bind carefully with a ribbon bandage to keep the two edges of the wound together.

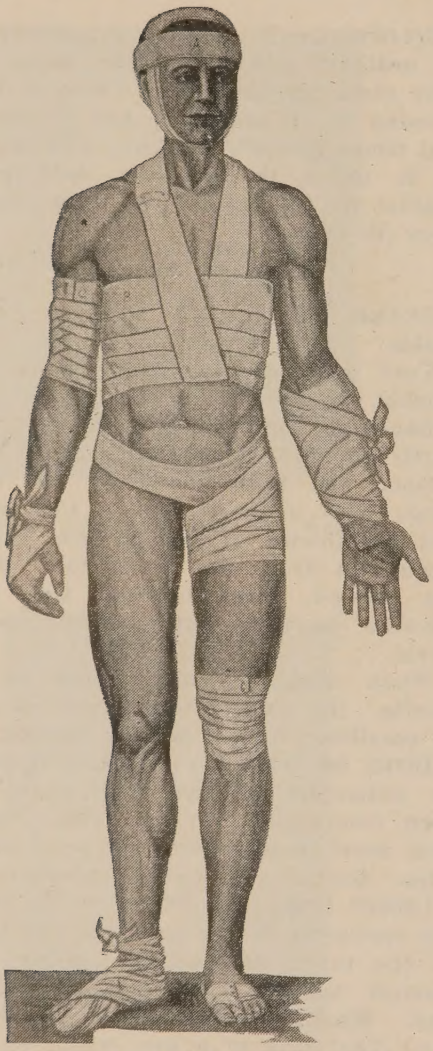
In pierced or punctured wounds caused by bayonets, knives, or by fish-hooks, needles, bits of glass, splinters and other common articles, remove the article causing the wound. If a portion has broken off, let a doctor remove it. Fish-hooks should be pushed through, not drawn backward. (If possible first cut off the loop or ring end of the hook.)

Gun-shot wounds are best treated by covering immediately with bandages or compresses made of gauze.

If fractures are in evidence, bind on splints, but never directly upon the wound. (See FRACTURES.)

If an upper extremity is wounded, place arm in a sling made from a triangular bandage. (See BANDAGING.)

BRUISES.—If slight, press firmly with compresses of surgically clean gauze or absorbent cotton wet with cold water; change frequently. If severe, use hot water as well as cold, and summon a doctor. Keep warm with blankets or dry hot applications, and hot tea or coffee.



Methods of applying roller and triangular bandages to various parts of the body.

SPLINTERS.—To remove a splinter, take an ordinary penknife blade, made surgically clean by boiling in water or by immersing in an antiseptic and passing several times through a flame; slip the point of it under the splinter, hold splinter against the blade with the thumb-nail and draw it out.

Poisoned Wounds

SNAKE BITE.—Don't stop to kill the snake.

Tear open clothing and expose wound quickly.

Bandage limb tightly above wound, partly to stop circulation.

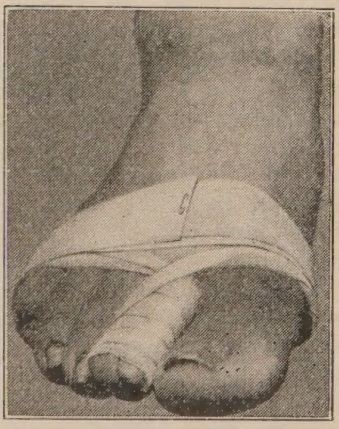
Open the holes made by the snake's fangs with a sharp knife. Cut outward and lengthwise of the wound. Let the blood run from the knife cut. Sucking the wound, expectorating the poison, answers the same purpose, but less effectively.

Wash wounds with alcohol or other spirits. Get patient to a doctor as quickly as possible. Keep pressure applied.

BITES OF DOGS, CATS, ETC.—Wash with an antiseptic solution and apply hartshorn (ammonia). If the animal has been sick, treat these wounds the same as snake bites. Get case in doctor's hands speedily.

INSECT BITES AND STINGS.—The sting of the centipede or the scorpion and the bite of the tarantula and the spider require prompt treatment, like that for snake bite. Wash antiseptically and call a doctor. The sting of a bee, wasp, or hornet is usually left in the wound and should be removed if it can be found. Then

Roller bandage for the head and jaw.



Roller bandage for the toe; begin at the foot.

apply hartshorn, baking-soda solution or salt in water. Such solutions will also relieve mosquito bite.

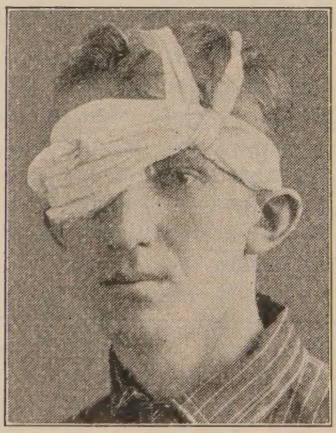
TOY PISTOL WOUNDS.—These as well as wounds from fire-crackers, small cannons and fire-works, require thorough washing with soap and water. Cover with antiseptic dressing and put case in doctor's hands at once.

MAD DOGS.—Many dogs called "mad" are not so in reality. When suffering from a true case of rabies (or hydrophobia) a dog froths at the mouth, rushes wildly about, snapping at other animals, especially at other dogs, and at human beings. Its accustomed bark becomes a high pitched yelping howl. After a spell of running and snapping the rabid animal will crawl out of the way, under a bush, or into a ditch, and lie exhausted for a time. At this stage he should be approached very carefully, however exhausted he may appear.

It is an old but incorrect belief that a mad dog will refuse water. A dog with rabies will eagerly drink, or try to drink, water to ease his burning throat.

Sometimes a mad dog will gather up straw, thread and bits of wood and carry them away, and will lick cold iron or stones. Later he is continually on the move; or if quiet for a few moments, will suddenly dart forward and snap at the vacant air, or throw himself yelping and furious against a wall. Although at this stage he may not bite, the dog's saliva already is virulently poisonous. He should at once be put out of the way.

Folded triangular bandage to apply pressure to the top of the head



Eye dressing. Folded triangular bandage, gauze pad and roller bandage.

If a club is not handy, the safest course is to throw a coat over the animal's head, and clutch him about the neck, through the cloth, kneeling upon him, until he is smothered, or until someone else has put him out of his misery.

When Sending for the Doctor

When a person is injured at a distance from his home or elsewhere, and is unable to walk, considerable time elapses while he is being removed. Much valuable time can be saved by forwarding a message to the doctor in advance, giving details of the injury as follows:

1. Part of the body injured: head, chest, abdomen, legs or arms.
2. Right or left side, above or below knee or elbow.
3. Whether bleeding or not.
4. Conscious or unconscious.
5. Name and address of person injured.

Broken Bones—Fractures

Fractures may be recognized by pain at a fixed point, the sound of a crack, mobility of limb at a point immovable before and irregularity of the bone surface at the painful point.

A simple fracture is one where the bone is broken but the skin is not pierced.

A compound fracture is one where the bone is broken and there is an opening from the outside air to the break.

In all fractures, get the patient to a doctor.

Make patient comfortable. Place limb in splints before attempting to move him.

For simple fractures, nothing but putting the limb in splints is necessary.

For compound fractures, first bind up the wound and stop bleeding. Then put limb in splints.

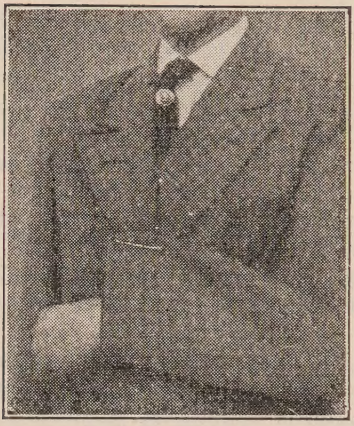
In all fractures remove clothing from the injured part, preferably by ripping up the seams.

Handle the fractured limb gently.

Lay injured limb upon splints well cushioned; bandage splints firmly so that fragments of bone will not move on each other. If fracture is compound, that is, accompanied by a wound, put gauze next to the wound, cover with an absorbent cotton pad, then with bandage, and put limb in splints as in simple fracture. Do not bind splints directly upon the wound.

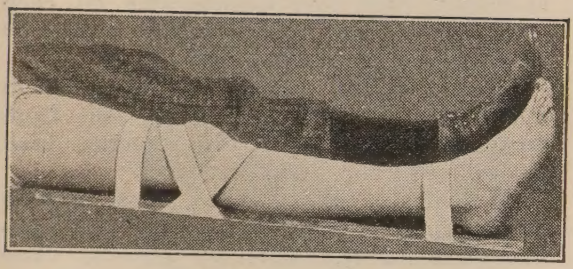
After splinting carry the patient to a physician on a stretcher, not in the arms.

SPLINTS.—Splints should be long enough to reach beyond joints on both sides of fracture, and always well padded. In

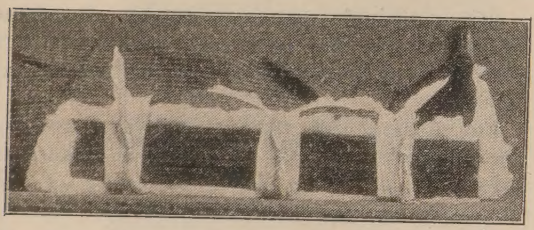


Sling made with the sleeve of a coat.

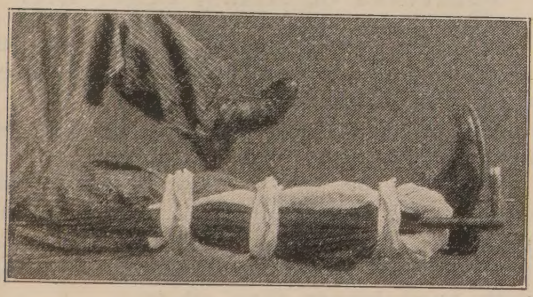
Sling made with two handkerchiefs.



Splint for fracture of kneepan. May be fastened with adhesive plaster or bandages.



Splint made of padded boards. Cotton is packed between the limb and splint.



Splint made with umbrella.

splinting, have two splints, one on each side of the limb; one bandage will hold both.

Small splints may be made from bunches of twigs, pasteboard cut from boxes, pieces of lath or shingle, desk rulers, or other rigid articles.

For large splints use barrel staves, broom handles, umbrellas, canes, tool handles, fire tongs, bayonets, swords, ramrods or rifles.

For padding, absorbent cotton is the best material. To improvise padding use grass, straw, soft cloth or soft garment.

For binding use triangular bandage. To improvise bandages use handkerchiefs, towels, garters, cords, suspenders or straps.

For slings use the triangular bandage. To improvise slings use towels, handkerchiefs, ripped coat sleeve or front of coat skirt turned up and pinned to breast, thus forming a pocket for the arm to rest in.

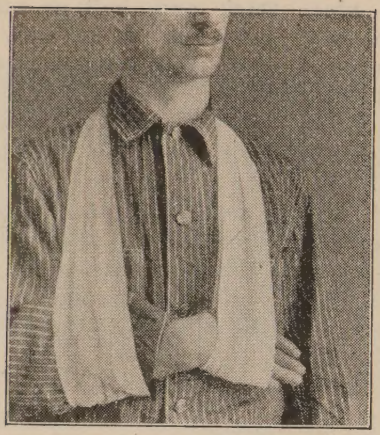
Fractures of Arms, Legs, Etc.

FRACTURE OF UPPER ARM.—No splints are required. Tie arm to side of body with wide bandage.

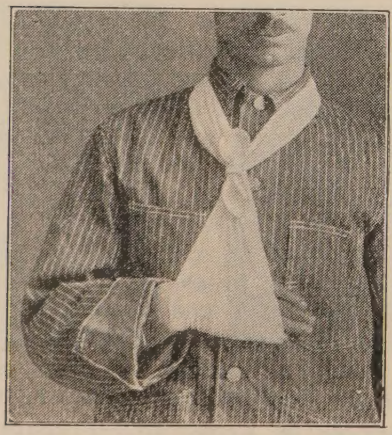
FRACTURE OF LOWER ARM.—Tie arm in splints and place in a sling

FRACTURE OF HAND.—Put a thick padding in palm of hand and tie a splint running from finger tip up the arm toward the elbow. Carry in a sling with hand higher than elbow.

FRACTURE OF WRIST.—Place wide splint beneath forearm reaching out under the



Sling made of two pieces of six inch bandage, or two triangular bandages. Tie ends together and place around neck so as to make two loops.



Sling made of triangular bandages, or two handkerchiefs.

hand; place thick pad, ball or other object beneath palm, so as to raise hand; bind around wrist and forearm. Support arm in a sling.

FRACTURE OF COLLAR BONE.—Can be recognized by dropping of shoulder affected.

High up in armpit place a good sized pad several inches thick, pushing the arm up as high as possible. Retain it in this position by bandaging it tight to body. Support arm in sling hung from opposite shoulder.

FRACTURE OF SHOULDER BLADE.—Put arm in large sling made from triangular bandage, then bandage arm to side.

FRACTURE OF RIBS.—Lay person on his uninjured side or on his back with head and chest elevated.

Wrap cotton bandages around chest several times.

If doctor cannot be reached, wrap whole chest in adhesive plaster.

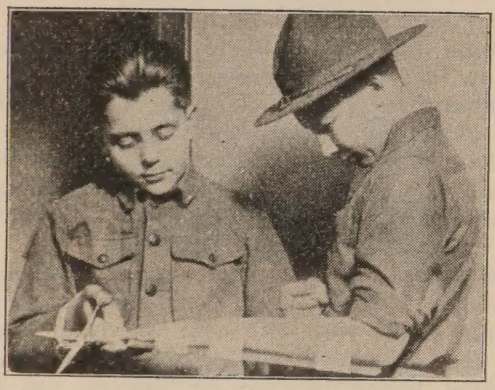
FRACTURE OF THIGH.—Lay the patient flat on back or a little inclined to injured side, head and shoulders slightly raised. Draw limb out straight.

Prepare splint long enough to reach from waist to ankle; pad well.

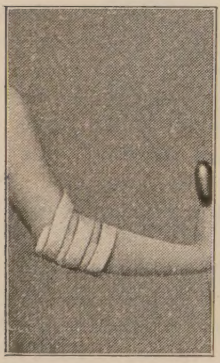
Bandage limb to splint above the break and below the break, around the knee, around the ankle and around the waist. Bandage in more than two places.

In carrying patient, bandage injured limb and sound one together.

FRACTURE OF KNEE-PAN.—Prepare splint large enough to reach from foot to thigh. Lay patient on back; straighten out in-



Simple holding splint dressing for arm.



Elbow dressing.

Support for weak instep.

jured leg; place it on splints. Under the knee place a pad three inches thick. Put a similar pad back of heel.

Bind splints at ankle and thigh, also below and above knee.

FRACTURE OF LOWER LEG.—Lay patient on back; pull injured leg down.

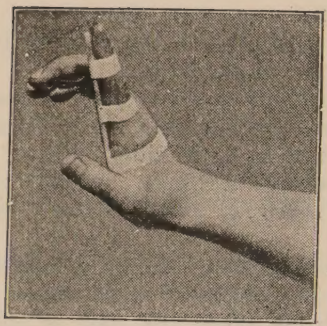
FRACTURE OF THE SKULL.—Place the patient on his back with his head and shoulders slightly raised. Convey to a hospital as soon as possible.

If there is an open wound bandage loosely. If there is any evidence of fever, apply cloths wet with cold water, or bags of ice, to the head. Place a piece of flannel under the ice bag so as not to freeze the scalp.

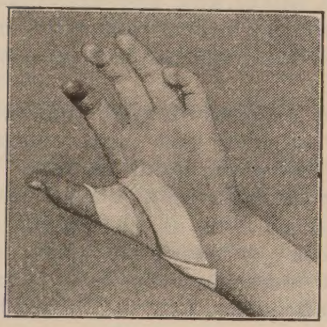
FRACTURE OF THE NOSE.—Check bleeding by plugging the nostrils with cotton or gauze. Put small pad of gauze on each side of nose and place strip of adhesive plaster across nose from cheek to cheek, or carry roller bandage lightly across and around head. Convey to a physician.

FRACTURE OF THE JAW.—Put the bones gently into place and raise lower teeth to upper. If any teeth are knocked out or loosened save them for the surgeon. He may restore them. Apply bandages as illustrated.

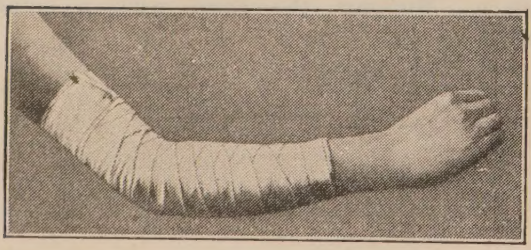
FRACTURE OF THE SPINE.—Send for a doctor. Lay the patient flat on his back. Do not disturb him unless absolutely necessary. If necessary to move, raise him carefully without bending the spine and slide a splint beneath him. Turning a patient in this condition to one side, or on his face, may prove fatal. Apply hot blankets to the body, if the patient is cold.



Holding splint dressing for finger.



Support for sprained thumb.



Roller bandage for elbow joint; begin at forearm.

FRACTURE OF THE SHOULDER BLADE.—Bandage the arm to the side as in a fracture of the collar bone.

BROKEN THIGH.—Send for a doctor. Lay the patient on his back, or a little inclined toward the injured side. Raise the head and shoulders slightly. Gently draw the leg out straight, keeping the toes pointed upward.

Apply a splint, using a board, broom handle, rifle or other rigid object that will extend from below the foot to the armpit. Pad the splint. Fasten the splint by bandages above and below the break, about the knee and ankle and one about the waist. Apply an inner splint also from the crotch to foot, or bandage the injured limb to the sound one.

BROKEN JOINTS.—Breaks near the joints are very serious and need extreme care. Bend or move the joint as little as possible. Lay the limb on a pillow. Apply light splints on all sides of the joints.

FRACTURE OF THE FINGERS.—Make a splint of cardboard or any suitable material, sufficiently long to extend from the tip of the finger up to the wrist. Pad the splint with cotton and bind it firmly in place. Support the hand with a small sling.

Suggestions on Fractures of the Limbs

Never attempt to handle the patient until the limb has been rendered immovable.

Support and splint the injured limb at once, to prevent further movement.

Straighten the limb with great care.

If shortened, hold the foot or hand until the limb regains a more normal length.

Keep the patient warm so as to lessen the effects of the shock.

In doubtful cases treat as a fracture.

Dislocations

BONES OUT OF JOINT

This injury is best distinguished from fracture by the inability of patient to move the limb.

Don't attempt to set dislocated parts. Send for the physician.

Place part in position easiest to the sufferer, supporting it on pillows or pads. Apply hot wet cloths.

FINGER DISLOCATIONS.—Simple dislocation of the finger can often be reduced by strong pulling on the finger and pressure on bone at joint to get it in place. When in place bind finger, not too tightly, with bandage or strip of adhesive plaster.

Sprains

This is a twist or wrench at the joint, with intense pain and rapid swelling.

Sprains are not such slight injuries as often imagined. A doctor should be consulted in every case.

Absolute rest is important. Handle a sprain as little as possible.

ANKLE OR FOOT SPRAINS.—Wrap in folded gauze or towel and immerse in a bucket of hot water, adding more water from time to time as hot as can be borne, for 20 to 30 minutes. Then bandage evenly and tightly and keep limb elevated.

WRIST SPRAINS.—Wrap as in ankle sprains and apply hot water continuously for one-half hour; then bandage and splint; support in a sling.

Triangular bandage for the scalp.

Triangular bandage for fracture of jaw, using two bandages folded very narrow.

Strains

Tearing or wrenching a muscle or tendon by violent exertion or sudden movement is called a strain. Strains of the arm or leg muscle are relieved by firmly strapping with adhesive plaster. A strained back due to heavy lifting or quick twisting is well treated by firm application of a porous plaster.

If much pain accompanies a strain it may first be treated with applications of hot water.

Burns and Scalds

Carry patient to a place of safety. If severe, send for doctor. Remove clothing from burns. Cover burns to exclude air. Never hold a burn to heat.

SLIGHT BURNS.—Apply common baking soda (sodium bicarbonate), made by dissolving in water as much baking soda as the water will take up. Cover with clean gauze cloth.

SEVERE BURNS.—Remove clothing by ripping up seams and cutting away; if clothing sticks around burned part, wet with warm water or oil. When extensive, quickly dress a little at a time; exclude air by covering surfaces.

Remove patient to a cool place, apply carbolized petrolatum, lard, olive or carron oil (equal parts of linseed oil and lime water), vaseline or white of an egg.

In the absence of oils, dust burned part with starch, flour or baking soda. If nothing else is at hand use moistened earth or clay.

Get burns covered as quickly as possible. The best means of applying oils is to dip gauze cloth into the oil and lay it upon the burned surface.

Then cover the gauze dressing with layers of cotton and bind all loosely with triangular or ribbon bandage.

Shock usually accompanies severe burns and should be treated accordingly. (See SHOCK.)

SCALDED MOUTH OR THROAT.—Apply olive or carron oil or white of egg by drinking them.

BURNS FROM GUN-POWDER AND ELECTRICITY.—Treat the same as ordinary burns.

IF CLOTHING CATCHES FIRE.—Throw person down, wrap him in a rug, coat or shawl, roll him on the floor until flames are extinguished.

BURNS FROM CAUSTIC LYE OR STRONG AMMONIA.—Flood with water, then with vinegar and then treat as if burned by fire.

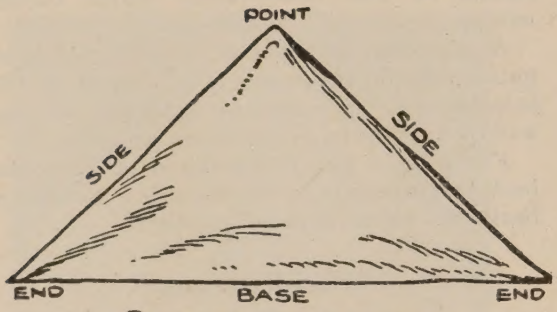
BURNS FROM ACID.—Flood with water and wash with solution of baking soda.

LIME IN THE EYES.—Flood with water and bathe with diluted vinegar or lemon juice.

SUN BURNS.—Cover with baking soda, vaseline or olive oil, bind with cloth.

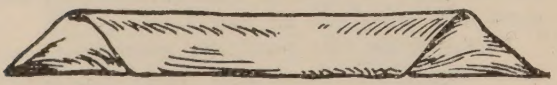
FROST BITE.—First, with the hand, gently rub the affected parts until they become reddened. If the frost bite is slight, apply vaseline and dressing, and keep the part elevated for an hour or longer. If blisters form, prick the lower edge of the blister, gently squeeze out the fluid and apply boracic compresses, changing these frequently enough to keep them moist.

Esmarch Triangular Bandage.

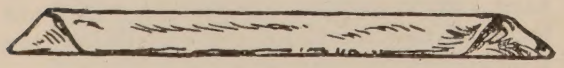


BANDAGE SPREAD OUT

BANDAGE ONCE FOLDED



BROAD BANDAGE



NARROW BANDAGE

Showing points at which to fold triangular bandage.

Boracic solution is made by dissolving a tablespoonful of borax crystals or powder in a pint of boiling water. This solution should be just comfortably warm before using.

A compress is made of several layers of gauze cut the necessary size, dipped in the solution and squeezed out until the solution will not drip from it when applied.

For a frost bite of the hand or foot, the best treatment is to immerse the part in a basin of warm boracic solution.

Miscellaneous

SUNSTROKE.—Remove to shady place. Lay patient down, head level with body, and loosen tight clothing. Pour cold water over head and face. Rub body with pieces of ice. Apply heat to extremities.

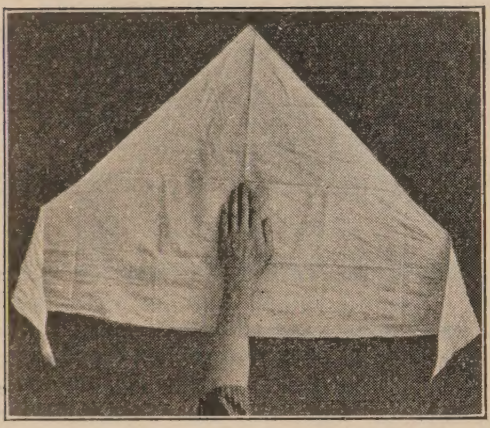
FAINTING.—Lay patient flat and loosen tight clothing around neck, chest, and waist. Allow free access of air. Bathe hands and face with cold water. When conscious give tea or coffee.

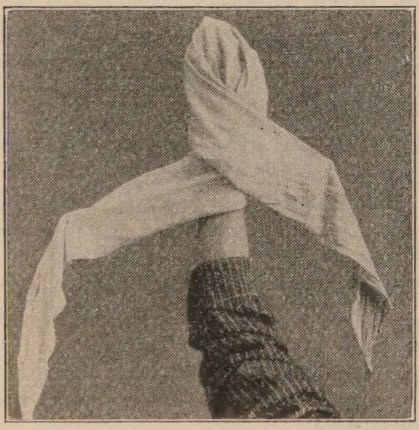
FITS.—Kneel by patient's head, put one arm under his head and with the other undo collar.

Place the handle of a penknife or any hard substance in a handkerchief and put between the teeth to prevent biting the tongue.

Do not restrain patient's movements. Do not give anything to drink.

UNCONSCIOUSNESS. — Lay patient flat, head slightly raised. Apply cold water to head. Keep body warm. Apply hot water bottles to soles of feet. Give no stimulants.





Showing application of triangular bandage to hand.

CONCUSSION OR STUNNING.—Proceed as in fainting.

HYSTERICS.—Do not restrain patient, nor sympathize with him in any way. In many cases the patient will recover best if left entirely alone.

Mustard plasters may be applied to soles of feet, wrists and palms of hands.

Foreign Bodies in Eye, Nose, Ear and Throat

FOREIGN BODIES IN EYE.—Do not rub the eye. Keep it closed and let tears gather to wash substance to corner. Do not use a handkerchief. First try to remove with a piece of surgically clean gauze. If not possible to wipe out the substance from the eye, blowing the nostril on the same side is often effective.

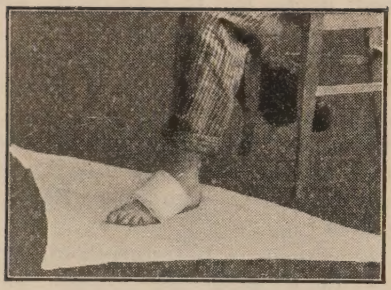
If body is under lid, pull lid up, and with a wisp of clean gauze or absorbent cotton twisted on the end of a match it may be removed.

Whether you get the substance out or not, put into the eye a few drops of vegetable oil (sweet oil). It is generally unnecessary to bandage the eye. Let the physician see it.

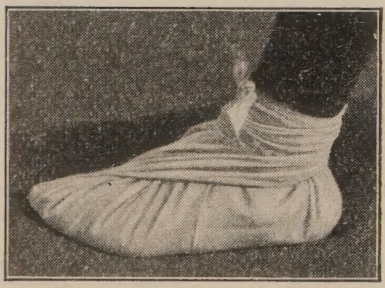
FOREIGN BODY IN NOSE.—Blow the nose hard, holding opposite nostril. Excite sneezing.

Have patient take a full breath, then give a sharp blow on the back between the shoulders.

In a child, such an obstruction may be removed by blowing into opposite nostril or into the mouth.



Triangular bandage applied to foot to hold dressing in place.



Triangular bandage for foot.

FOREIGN BODIES IN THE EAR.—For immediate relief put a few drops of warm oil into the ear.

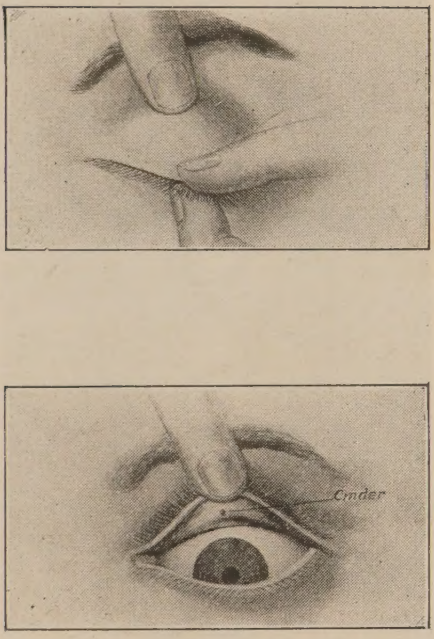
Never probe for it with wire, needles or pins. Send for a doctor.

Live insects which get into the ear will usually withdraw if ear is turned to a strong light.

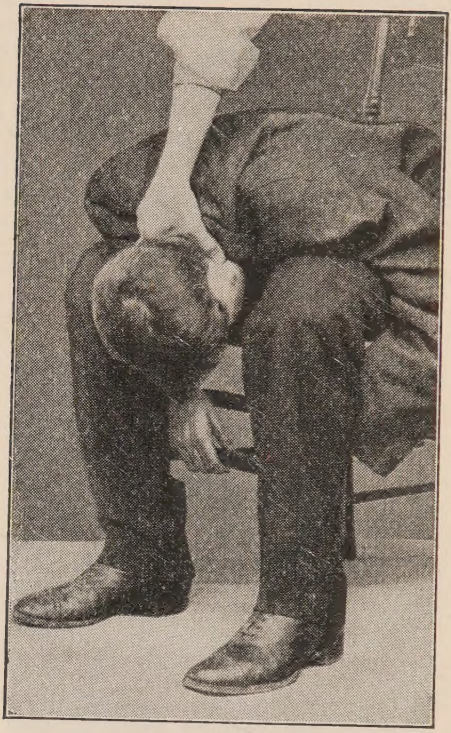
FOREIGN BODIES IN THROAT.—Send for doctor. Make patient cough by slapping him on the back. Bend him forward, face downward.

If the object is not dislodged, press two fingers back into the throat so as to grasp it.

Blowing the nose to remove foreign body.



Method of inverting eyelid to find foreign body.



Bending the head between the knees to prevent fainting.

Electricity Accidents

Shut off current as quickly as possible. Send for doctor at once.

Release injured person from contact with wire.

In releasing patient do not touch wire or any part of the patient directly.

Don't touch with bare hands anything made of metal; don't use a moist stick.

If rubber boots and rubber gloves are at hand, put them on; if not at hand, get dry paper or dry board to stand on before touching patient.

Cover the hands with dry paper.

If wire is lying on top of patient, flip it off with a dry stick.

If patient is in contact with two wires, short-circuit them by throwing (not laying) a metal rod or wet cloth across both wires.

If wire is under patient, and you have to lift him, do not grasp or touch his body, take hold of his clothes only.

In electric shock, patient is generally insensible. Restore consciousness.

Lay him down on back with folded coat or its equal as a cushion; loosen clothing.

Rub limbs briskly upward if patient is breathing and apply heat to extremities.

If breathing is suspended, use artificial respiration.

Beating of heart may possibly be restored by sharp slaps upon the chest with cloth wet with cold water.

Burns caused by electric shock can be treated the same as burns from fire.

Drowning Accidents

Inasmuch as many lives are lost by drowning, it is suggested that all persons acquaint themselves with simple and effectual methods of rescue and restoration. A practical way to do this is for two or more persons to go through the movements, one acting as patient, the others as rescuers.

When a person is discovered to be drowning, call to him in a loud voice that he shall be saved, to prevent weakness from fright. Undress as completely as possible.

A person who is drowning is crazy with fear; he struggles in a frantic way, grasping at everything about him. Unless the rescuer is on his guard his efforts may be futile. The illustrations show methods for avoiding dangerous holds. They were posed by members of the Volunteer Lifesaving Association of New York.

Do not touch the drowning person while he is violently struggling in the water, but take the first opportunity to seize him, and throw him quickly on his back. Swim on your back, towing the body after you, resting his head on your chest. If a boat is available, the proper places to get bodies into the boat with the least danger of capsizing are the stern or bow. The patient, in the boat or ashore, should be placed with the head lower than the chest.

Schaefer (or prone) method of artificial respiration, first movement: "Out water."

Schaefer (or prone) method of artificial respiration, second movement: "In air."

Send immediately for medical assistance, blankets, and dry clothing. (As soon as the victim is clear of the water, quickly feel with your fingers in his mouth and throat, and remove any foreign body, such as tobacco, false teeth, etc. If the mouth is tight shut, pay no more attention to it until later.)

Instantly proceed to the restoration of breathing, as follows:

Place the patient face downwards, with the arms extended. (Do not take time to loosen or remove the clothing.) Turn the face to the side. Kneel astride of the patient. Place the hands on the small of the back (over the lower ribs), one on either side, thumbs parallel and nearly touching (see illustration).

Swing forward slowly, arms straight, so that the weight of your body is gradually but not violently brought to bear upon the patient. The movement should occupy the time necessary to say slowly—"Out water!"

Swing backward, relaxing the pressure, but without lifting the hands, saying slowly—"In air!"

Repeat deliberately, without any marked pause between the movements, making a complete respiration in four or five seconds.

Continuing the breathing movements, have someone loosen any tight clothing about the patient's neck, chest or waist. Have dry, warm covering placed over the patient, and apply hot-water bottles, or

hot bricks, or stones wrapped in flannels, between the thighs and the armpits and feet. The movements of artificial breathing must not be interfered with, however.

Continue the treatment if necessary for four hours, or longer, or until a physician has pronounced life extinct.

Do not move the patient until he is breathing normally. If it is absolutely necessary to move him, have him placed on some hard surface, such as a door, or the floor of the conveyance used, artificial respiration not being for an instant interrupted.

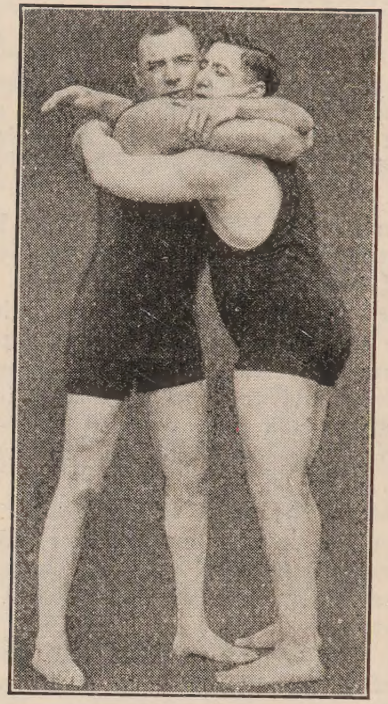
When natural breathing has fully begun, the patient should be allowed to lie in a natural position, on his right side.

After natural breathing has returned, remove the wet clothing, wrap the patient in warm blankets or other covering, dry the hands and feet, and proceed to promote circulation and warmth by rubbing the limbs upward (that is, towards the heart). The object is to drive the chilled blood along the veins to the heart.

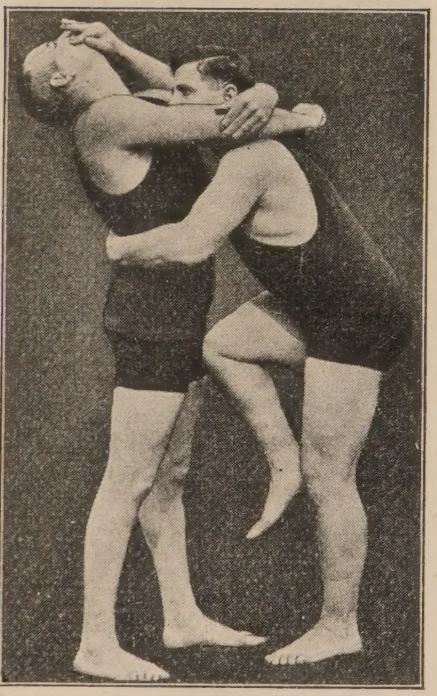
When the patient can swallow, administer small quantities of hot coffee, tea, milk or broth, or other light warm nourishment.

This (Schaefer) method of artificial respiration is applicable in restoring respiration in electrical accidents, suffocation by gas, etc.

The method should be mastered by men, women, boys and girls in all walks of life, in order to be able to apply it in an emergency.

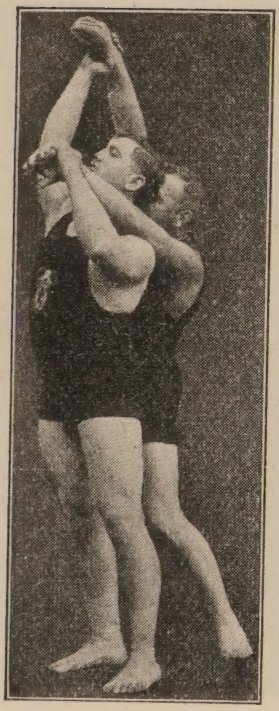


Front strangle hold. Patient has grabbed rescuer around the neck from the front.

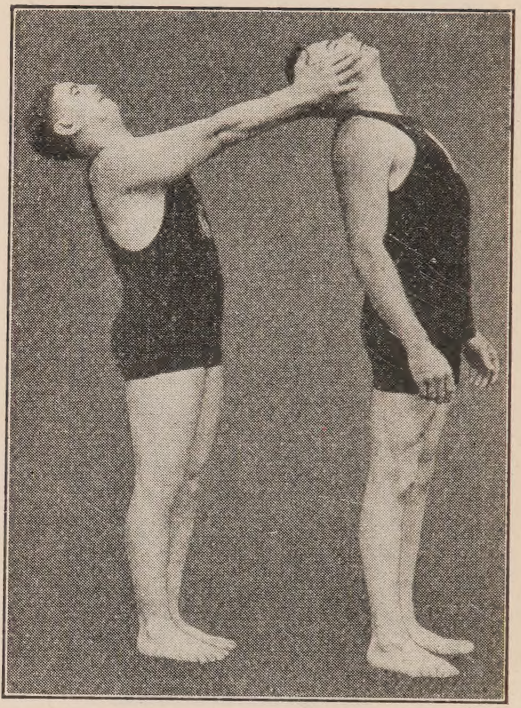


Breaking the front strangle hold.

Back strangle hold. The patient has grabbed rescuer around the neck from the back.



Break of back strangle hold. The arms are forced up and over the head.



Head carry. Cover ears with hands, which stops pressure of water in ears, making the patient more comfortable, and he will gradually cease struggling.

Under arm carry. Rescuer uses feet for swimming.

Ammonia Accidents

Ammonia gas used in refrigeration plants is at times the origin of serious accidents.

Ammonia causes irritation and congestion of the lungs and bronchial tubes, violent coughing and vomiting and, when breathed in sufficient quantity, suffocation.

Do not give the patient any liquid by mouth until fully conscious. Keep the body warm and give the patient plenty of fresh air at all times.

If the injury is external in the form of a freezing, or, as it is sometimes called, burning, lint, gauze or other dripping wet with carron oil (equal parts of linseed oil and lime water) should be applied frequently.

In cases of partial or total suffocation by ammonia gas, carry to fresh moving air if possible, and immediately give artificial respiration. (The Schaefer method.) Send for a doctor at once.

If the ammonia has penetrated through the clothing, the clothing should be removed at once.

FOR THE EYES.—First, pour a one per cent solution of boracic acid into the eyes. Second, after thoroughly washing the eyes, place a small quantity of plain petrolatum (vaseline) under the lids, by pulling down the lower lid.

FOR NOSE AND THROAT.—Dip a handkerchief, or a piece of gauze folded once, in vinegar. Wring out lightly and lay over nose and mouth. If liquid ammonia has entered the nose, snuff up some vinegar

and apply sweet oil with a feather or cotton to inner surface of nostrils.

If ammonia has been swallowed, administer diluted vinegar, orange or lemon juice in liberal quantities, following up with one to four teaspoonfuls of sweet oil, milk or the whites of three or four eggs with cracked ice.

Carbon Monoxide Poisoning
(GAS POISONING)

Carbon monoxide gas is the principal poisonous substance in the return air from mine fires, in illuminating gas, in gases after mine explosions and in the exhaust gases of automobile engines.

Of recent years, owing to the remarkable increase in the use of the automobile and the custom of keeping them in small private garages, generally unheated, there are continually occurring cases of carbon monoxide poisoning due to allowing the motor to run in the closed garage.

Another modern danger is the extensive use of gas ranges for cooking, especially in small kitchens or kitchenettes. These ranges are often not connected with a flue and in unventilated kitchens, the accumulation of carbon monoxide is sometimes sufficient to produce partial or complete poisoning or asphyxiation.

This gas is odorless and tasteless and its effects are insidious and rapid. A person is overcome so suddenly that he is unable to crawl away.

The symptoms are unconsciousness and semi-unconsciousness, patient very weak, and breathing rapid but weak.

The treatment for this poisoning is to get the patient into fresh moving air as quickly as possible, send for a doctor and commence at once restorative activities, preferably the Schaefer method of resuscitation, with, if possible, the administration of oxygen.

Transportation of the Injured

Accidents often occur in places where it becomes necessary to carry the injured person to his home or to a hospital. Great care should be taken that the patient does not receive any further injury during the transportation.

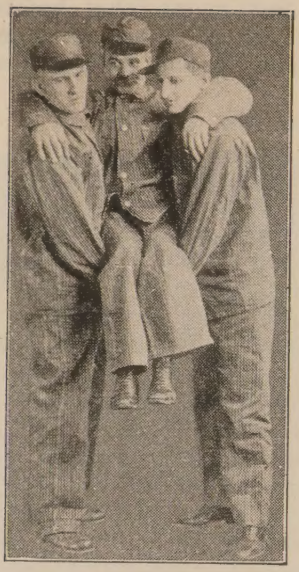
Before attempting to move the patient all needed first aid measures should be applied, and the patient carefully prepared for being moved.

Serious cases should be carried on a stretcher. In absence of a stretcher various methods of transportation have been devised, some of which are here illustrated.

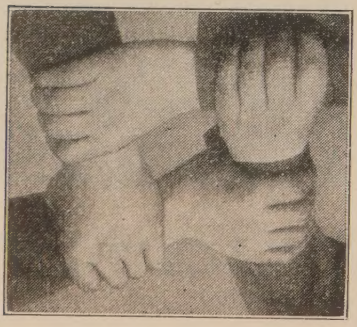
When a proper stretcher cannot be obtained, a temporary one may be made. Turn the sleeves of two coats inside out and button the coats over them. Pass two stout poles through the sleeves. The backs of the coats form the top of the litter.

Take two sacks, make a hole in each corner of the bottoms, and pass two poles through the sacks and out of the holes.

A broad board or shutter may be employed as a stretcher; but if either of them be used, some straw, hay, or clothing should be placed on it, and covered with a piece of stout cloth or sacking.



Method of carrying the injured.



Four-handed seat.

Always test a stretcher before putting the patient on it. Place an uninjured bystander upon it and spring him up and down.

To place the patient on a stretcher, put the stretcher at his head in line with the body. Let the two bearers, on opposite sides of the patient, grasp hands beneath his back and hips, raise him, lift him backwards over the stretcher and lower him upon it.

Bearers of stretcher must not keep step in marching. Opposite feet must be put forward at the same time to prevent the swaying of the stretcher and the rolling of the patient.

Never allow a stretcher to be carried on the bearers' shoulders.

Always carry the patient feet foremost, except when going up a hill. In cases of fractured thigh or fractured leg, if the patient has to be carried downhill, carry him head first.

In carrying a patient on a stretcher, avoid lifting the stretcher over walls, hedges, or ditches.

Method of carrying a person who is fainting.

Domestic Emergencies

The suggestions which follow are confined to simple measures for use in emergencies which arise in the household when medical assistance cannot be immediately procured. In all emergencies the first thing to do is to send for a physician.

FEVER.—Undress the patient and put him to bed. Do not cover up too warm; he will be more comfortable with a moderate amount of covering. Give cooling drinks; no food, except milk. Bathing with moderately cool water will give slight relief.

CHOLIC OR CHOLERA MORBUS.—Apply heat in the form of hot-water bags, bottles, hot plates, and mustard plaster over the seat of pain. Hot baths are sometimes useful.

DIARRHEA—DYSENTERY. — For simple diarrhea, ginger tea, peppermint or other warm drink will usually bring relief. A tablespoonful of sweet oil for an adult, or teaspoonful for a child will relieve irritation. For dysentery, which follows diarrhea, rest in bed, hot compresses, or mustard plasters applied to abdomen and soles of feet will bring relief.

VOMITING.—Patient should always lie down. Give large amounts of hot water, as hot as can be taken. Small bits of ice held in the mouth or swallowed, or a lump of ice held against the pit of the stomach, will sometimes bring relief. When other means fail, apply a mustard plaster to the pit of the stomach.

HICCOUGH.—In severe attacks apply mustard plasters over the stomach Hot vinegar or alcohol applied in the same manner

Carrying in blanket litter.

will sometimes bring relief. Let the patient draw a deep breath and hold it as long as possible.

CROUP.—Keep the room warm and have water boiling in such a way that the steam will reach the sufferer. Apply flannels wrung out in hot water to the throat and cover with some waterproof material. Use mustard plaster on the soles of the feet and chest (for a few moments only). Give a hot foot bath; if no relief, try cold. Never neglect to summon a physician.

HERNIA STRANGULATION.—Place the patient on his back in bed; elevate the foot of the bed about twelve inches; bend the legs back towards the abdomen. Apply to the hernia towels or cloths wrung out in hot water; if these do not bring relief, apply cold. Get a physician at once.

CRAMPS.—Bathe the part in water as hot as can be borne; apply mustard plaster to the part affected.

SUPPRESSION OF URINE. — Apply hot cloths over bladder; give a warm sitz bath. Walking over a cold, wet floor or dashing cold water on the legs and thighs will often help.

NERVOUSNESS.—Put patient to bed; give hot drinks, especially coffee; apply heat or mustard to soles of feet, back and chest.

NEURALGIA.—Apply a mustard plaster or hot cloths over the seat of pain. If hot applications fail to relieve, apply cold.

EARACHE.—Apply cloths wrung out of hot water to the head or near the seat of pain. A hot poultice is useful. Give hot drinks. Moisten a bit of cotton with sweet oil and laudanum and put in the ear.

Patient on back of rescuer.

Rescuer ready to lift patient from standing position to his back.

Poisons

Substances which are capable of producing poisonous symptoms are very numerous and varied. Prompt measures are required. A physician should be sent for at once. He should, if possible, be told of the name of the poison that has been used so that he may bring proper remedies. While waiting for the physician, the measures here enumerated may be used.

In poisons taken into the stomach, three procedures are always in order: Empty the stomach, using any of the methods given. Give stimulants. Give the proper antidote, if known.

Emetics—Stimulants

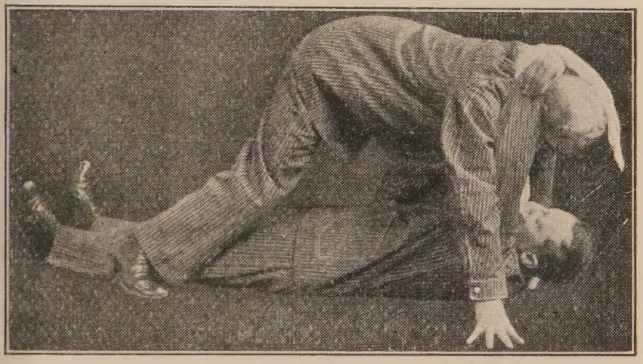
In most cases of poisoning the important step is to empty the stomach. The readily available means of producing vomiting, here given, may be employed while awaiting the physician's arrival.

Do not hesitate to thrust the forefinger down into the throat immediately; follow with a glass or two of warm water. Repeat this process several times.

Give a tumbler of water with a teaspoonful of ground dry mustard stirred into it. If not successful in producing vomiting, follow this with a second tumblerful of the mixture, then push the forefinger as far down the throat as possible, and keep it there until the patient vomits.

Stir a teaspoonful of salt into a glass of warm water and make the patient drink it.

The Morgan carry.



Low seam drag. The patient's wrists are tied together with a bandage or handkerchief and rescuer crawls toward the fresh air or exit, dragging patient.

Give syrup of ipecac every few minutes—a teaspoonful to a child, a tablespoonful to an adult, following each dose with a glass of warm water and then the forefinger.

It is often very difficult to make a person vomit who has taken opium, as the sensibility of the stomach is deadened. In every case of poisoning never cease your efforts until free vomiting has taken place. Use any or all of the methods mentioned.

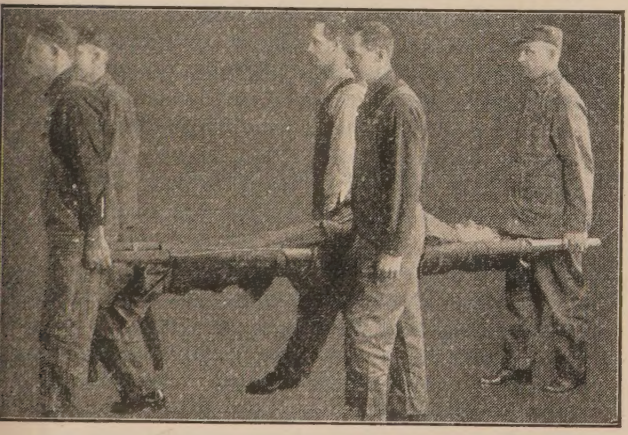
Stimulants may be given, particularly in narcotic poisons. If the patient can swallow he should take them by the mouth, providing the poisoning is not due to corrosives, otherwise by the rectum (lower bowel), or by inhalation. Strong coffee is of greatest value in narcotic poisoning. Ammonia inhalation should be administered by dropping a sufficient amount on a handkerchief or in the palm of the hand. The bottle should never be held to the nose.

Alcohol Poisoning

Alcoholic poisoning is not simply drunkenness, but a collapse of the human system following excess, and often ends in death. The victim may become speechless and motionless, the pulse quick and feeble, the breathing noisy, the eyes bloodshot, the face at first flushed, then pale. The breath will smell of alcohol.

Get a doctor at once. While awaiting the doctor, pour some aromatic spirits of ammonia on a handkerchief and hold it close over the unconscious man's nose and mouth. Be careful not to get any in his eyes.

Making an improvised stretcher of coats and poles.



An improvised "coat stretcher." Three coats are used.

If the patient rouses considerably under the treatment with the spirits of ammonia, if the pupils of his eyes are equal in size, if he moves both arms and legs himself (so that you are sure he is not paralyzed) and if you find no bump on his head, you may be fairly sure that his condition is due to liquor alone. In this case, make him vomit if you can by tickling his throat with a straw or a feather, and when he is conscious give him a big dose (1 to 2 teaspoonfuls) of aromatic spirits of ammonia and an ounce of Epsom salts in a full glass of water.

POISON IVY.—Poison Ivy may be identified by its three leaves with few notches. Young leaves are likely to be a shiny copper in color, and when older a dull green. In autumn they become a brilliant scarlet. The flowers are of a greenish yellow, and are followed by small pale green berries in loose bunches.

The poison, which causes an intense inflammation of the skin, is an oil, covering the leaves and stems of the plant. It is carried even by the pollen blown from the flowers by the wind. That is why persons susceptible to ivy poisoning are affected simply by passing near the vine.

TREATMENT

Wash the irritated spot immediately with strong soap suds, using a small cloth, and beginning in a wide circle and scrubbing slowly in toward the center. Rinse with warm water and dry the skin. Repeat this treatment several times with alcohol.

When you are sure that the oil has been removed, ease the skin with an application

of vaseline or cold cream. One of the most effective applications, however, is the following wash, which any druggist can prepare.

Carbolic acid, one-half gram; zinc oxide, one-half ounce; lime water, one ounce.

Shake well and apply with absorbent cotton or small sponge. Repeat every hour until the inflammation disappears.

If a druggist cannot be reached, bathe with salt water or baking soda, to relieve the irritation.

A modern remedy recommended by botanists is to wash the affected parts with soap and water, dry, and paint two or three times with a piece of cotton dipped in a very weak solution of iron. If oozing results, dust with boric acid powder. Repeat once or twice a day for three or four days. The safest "treatment" is to watch out for, and avoid, the poison ivy, even though it has not previously affected you.

Poison sumach, nettles, rue and the common primrose may cause a poisoning similar to that of ivy. The treatment is the same.

Antidotes to Poisons

Antidotes are substances which act as counter-poisons and which, in a measure, combat the effect of poisons. When a poison is taken internally the stomach should be emptied by vomiting, etc. This should be followed by the administration of the antidote. The antidotes here named are those which may easily be obtained.

ACIDS.—For nitric and oxalic acids, carbonate of magnesia or lime; for sulphuric acid, strong soapsuds; for acetic, citric,

muriatic or tartaric acid, any weak alkali. Induce vomiting, give soothing, oily drinks.

CARBOLIC ACID.—Give oil or milk, followed by an emetic. Secure rest, warmth of body and stimulation. Full-strength alcohol applied to the flesh will act as an antidote to the burning sensation. Give large doses of Epsom salts.

PRUSSIC ACID.—Give very weak ammonia. Pour cold water on the spine. Give emetic and stimulants.

ALKALIS AND EARTHS, viz., Ammonia, baryta, lime, potash or soda:—Give vegetable acids—dilute vinegar, lemon juice, etc.; neutralize them with fixed oils—castor, linseed, olive, etc. Give these and soothing drinks.

ARSENIC.—This substance is a common source of poisoning accidents in the powder form (arsenic acid). Arsenic is an ingredient of fly paper, insect exterminators and rat poisons. Paris green or Scheele's green is the arsenite of copper.

Give emetics promptly, such as draughts of hot greasy water, or salt and water. A large amount of magnesia or lime scraped from the walls or ceilings may be given. Give castor oil, sweet oil, lime water, or raw eggs, milk and stimulants (well diluted.) Induce vomiting.

CORROSIVE SUBLIMATE, MERCURY OR VERMILLION.—Give the white of eggs or flour gruel. Induce vomiting

PHOSPHORUS, NITRATE OF SILVER, TIN, ZINC OR WHITE VITRIOL.—Emetics and magnesia. Give common salt or carbonate of soda in solution, milk and white of egg. No oil.

NUX VOMICA, STRYCHNINE.—The spasms

may be quieted by inhalation of chloroform. Give strong tea and charcoal; follow with emetic. Use artificial respiration.

POISONOUS FISH.—Emetics, purgatives and stimulants.

NARCOTICS AND ACRONARCOTICS.—Aconite, alcohol, belladonna, camphor, chloral, conium, ergot, hellebore, hyoscyamus, opium, morphine, tobacco, toadstools, turpentine. Artificial respiration; evacuate the stomach thoroughly by emetics and purgatives; give strong coffee and keep the patient roused.

Mustard Plasters

In first aid work and in home emergencies the proper application of mustard plasters is often of the greatest service.

Mustard plasters, or poultices, may be made of table mustard, but the ready prepared plasters, obtainable at any drug store, are the most effective. These prepared mustard plasters are ready for instant use by simply dipping in water.

How to Apply Mustard Plasters

Mustard plasters may be applied directly to the painful part, but they are usually applied to the extremities, such as the feet and wrists.

In inflammation about the throat involving such ailments as tonsillitis and quinsy sore throat, mustard plasters are applied to the calf of each leg or on the thighs and soles of the feet. This same method may be followed in most other cases. In urgent cases, mustard plasters may be used on all these places at once, until there is a reddening of the skin surface. When nec-

essary, plasters may be applied once, twice or even three times in twenty-four hours.

When a physician is at hand, mustard plasters should not be used except under his direction.

The following are the points of application which are usually most effective for the ailments indicated:

IN PRESSURE OF BLOOD TO THE HEAD.—Coma, inflammation, delirium, nose-bleed: Apply to legs, arms and abdomen.

IN LOCAL CONGESTION.—Concussion, paralysis, narcotism, headache, apoplexy, hemorrhage, stupor: Apply frequently to the arms, stomach and calves of the legs.

IN SLEEPLESSNESS.—Mania, spasmodic affections, hysteria, epilepsy: Apply daily to legs and soles of the feet.

IN AFFECTIONS OF THE CHEST.—Colds, whooping cough, coughs, congestion: Apply twice daily to stomach, legs and feet.

IN STOMACH TROUBLES. — Vomiting, spasms, nausea, pains, seasickness: Apply over stomach, but not on legs unless feet are cold.

IN ABDOMINAL TROUBLES.—Spasms, cholera morbus, painters' cholic, cholic pains, diarrhea, cholera: Use frequently and plentifully on arms, legs and abdomen; keep in place twenty or thirty minutes.

IN MUSCULAR PAINS.—Rheumatism, local pains, inflammation, sciatica: Apply to the hands and feet.

IN CHILLS.—Wherever there is a cold surface, mustard plasters should be applied and kept in place for twenty or thirty minutes. Mustard leaves can well be substituted for the mustard in water foot-bath.

Dressings for Wounds

The greatest danger to wounds results from contamination with foreign substances. Certain invisible irritating particles (so-called germs) quickly find lodgment in the wound by transference from the air, the clothing, skin, in fact from anything with which it may come in contact. In consequence of such contamination blood poisoning, gangrene, inflammation, fever, erysipelas, lockjaw, tetanus, and a number of other complications are likely to follow any wound. Even scratches and pricks, when not properly cared for, may result in inflammation and in the formation of gatherings or abscesses, which will disable a person for a considerable time or cause the loss of a limb. For this reason, modern practice demands that the dressings applied to a wound shall not only look clean, but actually be surgically clean (aseptic) that is, free from infection.

If, on the contrary, dirty rags, chewing-gum, tobacco, cobwebs, dirty oils or liniments are used, as is often done by well-meaning but ignorant persons, the results are almost sure to be disastrous.

What is known as surgically clean or germ-free dressings, such as are now used in hospitals, can be procured at drug stores, and should be kept on hand in every factory, shop and household.

Cloths of cotton or linen may be boiled in water or baked in an oven, for applying next to a wound in an emergency, but they are not always a safe substitute for the surgically clean dressings.

First Aid Outfits

Outfits carrying wound dressings and appliances for first aid can now be procured at drug stores. These outfits are adaptable to all conditions of life—factory, shop, household, camping, hiking, traveling, motoring.

Outfits of this character should be provided in order to promptly meet emergencies, and they may be the means of saving both life and limb.

First Aid Service

Johnson & Johnson have instituted a First Aid Service Bureau which fills a most important position in the world-wide First Aid movement.

The Service reaches beyond the production of outfits and supplies. It has assisted in the organization and installation of first aid systems in railways and transportation lines, factories and industries.

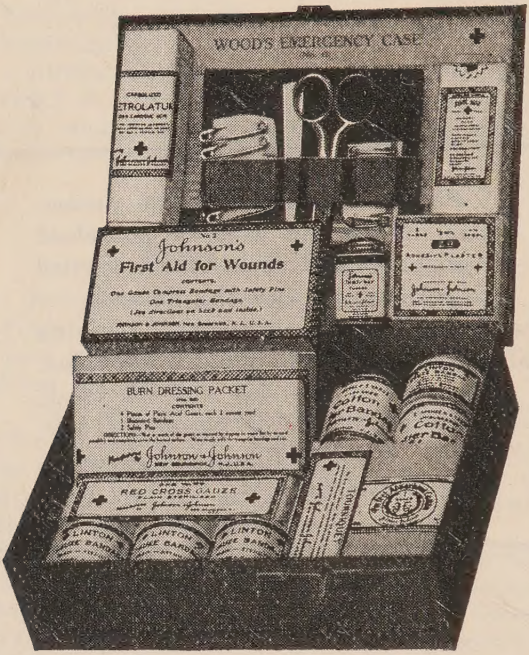
The Bureau has been of special service to teachers and instructors in factories, mines, Y. M. C. A., Boy Scout, Girl Camp Fire organizations, and in other associations and organizations.

The Service is prepared to cooperate with all who may be interested in the subject of first aid. In addition to the work of furnishing supplies and equipments there is issued by the Bureau a considerable amount of literature and other helps.

Persons interested in the promotion of first aid work or household hygiene in any capacity are invited to correspond with the Bureau.

Constructive literature covering the subject of first aid application, the care of the sick and the treatment of disease is cheerfully supplied. Write to Johnson & Johnson, New Brunswick, N. J.

Wood's Emergency Case No. 6



Dimensions: 9 x 7½ x 3 inches.
Weight: 3 pounds.

This case is designed for home, store, small shop, summer bungalow, camp or launch—where a compact and convenient first aid outfit is essential.

In a substantial black japanned metal case, with hinged cover, is packed just the assortment of first aid dressings that experience has taught to be necessary for emergency use.

People have at last come to realize the danger of carelessness and neglect in the treatment of wounds. "Prompt attention prevents infection" has become a creed in railroad, automobile, steamship and airplane travel. In factories, mines, garages and hotels first aid has found its place and daily performs its splendid work.

Now first aid protection has been made available to everybody, through conveniently arranged cabinets.

Wood's Emergency Case contains burn dressings, sterilized gauze, absorbent cotton, bandages, "Z O" Adhesive Plaster, Band-Aid, carbolized petrolatum, iodine, tourniquet, scissors, tweezers, safety pins.

These are in sufficient quantity to take care of ordinary injuries. A handbook of First Aid is included.

As the dressings are used, refill packages may be secured at your drug store, thus assuring a complete outfit at all times.

Made by Johnson & Johnson. Sold by your druggist.

Johnson's Autokit

AUTOKIT Nº8
CONTENTS
ONE—1 IN. BY 1 YD. Z. O. ADHESIVE PLASTER.
ONE—1/2 OUNCE AROMATIC SPIRITS OF AMMONIA. FOR FAINTING.
TWO—2 IN. X 6 YD. LINTON GAUZE BANDAGES.
TWO—1 IN. X 6 YD. LINTON GAUZE BANDAGES.
ONE—1 IN. X 3 YD. LINTON GAUZE BANDAGES. A DIRECT COVERING FOR WOUNDS.
ONE—ENVELOPE BAND-AID (PROTECTIVE DRESSING) FOR MINOR CUTS AND SCRATCHES.
ONE—TRIANGULAR BANDAGE. TO HOLD DRESSING IN PLACE OR AS A SLING.
ONE—1/4 OUNCE BURN EMOLLIENT. TO BE APPLIED TO BURNS.
ONE—1/4 OUNCE RED CROSS ABSORBENT COTTON. FOR CLEANING AND COVERING WOUNDS.
ONE—1/2 OUNCE SOLUTION OF IODINE. TO BE APPLIED TO WOUND IMMEDIATELY
ONE—PAIR SCISSORS.
ONE—TOURNIQUET. TO STOP SEVERE BLEEDING.
TWELVE—3" WOODEN APPLICATOR STICKS. FOR APPLYING IODINE TO WOUNDS.

Dimensions: 7¼ x 5¼ x 1¾ inches.
Weight: 1 pound, 2 ounces.

Why does a motorist carry a spare tire? Not because he expects trouble, but to be prepared for it. The same principle applies to a first aid case. A motorist ought to think as much of his family as he does of his car, remembering that prompt attention of little injuries prevents infected wounds.

The Autokit, especially designed to be carried in a car, contains everything needed to dress an ordinary injury. The case is metal, with rounded corners and is enclosed in a neat khaki cloth cover.

Vest Pocket First Aid Outfit

Small size: 1¾ x 1⅜ x ⅜ inches
Large size: 2-11/16 x 1⅞ x ⅜ inches

This small outfit, in metal container attractively finished in gray, has been designed for women's handbags, men's vest pockets, children's pockets. The one who carries it will always have first aid protection, will be prepared to prevent small injuries from becoming dangerously infected wounds.

The Vest Pocket Outfit is furnished in two sizes. The small size contains 1 Mercuroply and 2 pieces of Band Aid, ¾ inch wide.

The large size contains 4 Mercuroply and four pieces of Band-Aid, two pieces 1½ inches and two pieces ¾ inch wide.

Principles of First Aid

The first aid student should be observant—noting the cause and signs of injury.

Tactful — avoiding thoughtless questions and learning the symptoms and history of the case.

Resourceful—using whatever is at hand to the best advantage so as to prevent further damage.

Explicit—giving clear instructions to the patient, and advice to the assistants.

Discriminating—that he may decide which of the several injuries should be given attention.